

#### SURFACE MOUNT DISPLAY

Part Number: ACSA03-41SRWA-F01

Super Bright Red

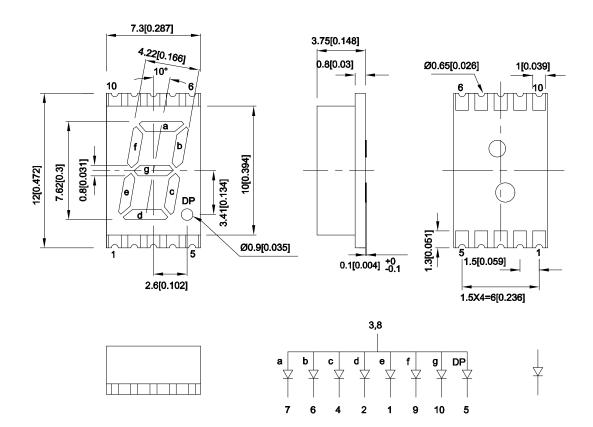
#### **Features**

- 0.3 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 550pcs / reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

#### Description

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

#### **Package Dimensions& Internal Circuit Diagram**





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- 1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
- 2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

  3. The gap between the reflector and PCB shall not exceed 0.25mm

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#### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Тур.	2000 I pilon
ACSA03-41SRWA-F01	Super Bright Red (GaAlAs)	White Diffused	5600	9800	Common Anode, Rt. Hand Decimal.
			*1400	*2600	

#### Notes:

- 1. Luminous intensity/ luminous Flux: +/-15%.
  \*Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

## Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red	655		nm	IF=10mA
λD [1]	Dominant Wavelength	Super Bright Red	640		nm	IF=10mA
Δλ1/2	Spectral Line Half-width	Super Bright Red	20		nm	IF=10mA
С	Capacitance	Super Bright Red	45		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Red	1.85	2.5	V	IF=10mA
lr	Reverse Current	Super Bright Red		10	uA	VR=5V

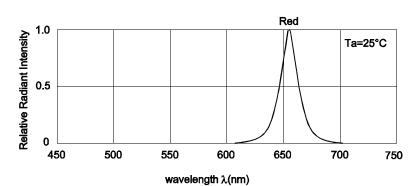
- 1. Wavelength: +/-1nm.
  2. Forward Voltage: +/-0.1V.
  3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
  4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

#### Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	155	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	-40°C To +85°C		

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

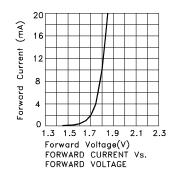
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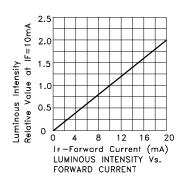


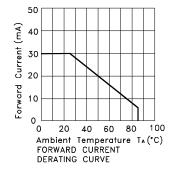
Relative Intensity Vs. Wavelength

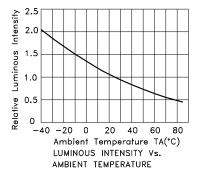
#### **Super Bright Red**

#### **ACSA03-41SRWA-F01**



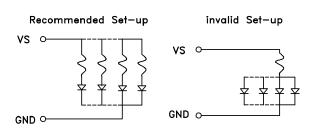






#### CIRCUIT DESIGN NOTES

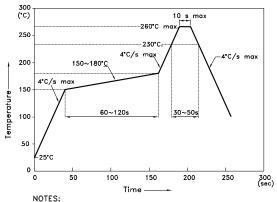
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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#### **ACSA03-41SRWA-F01**

Reflow Soldering Profile For Lead-free SMT Process.



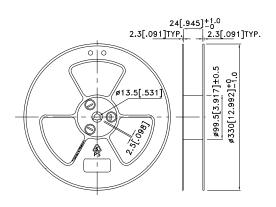
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C. 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
   3.Number of reflow process shall be 2 times or less.

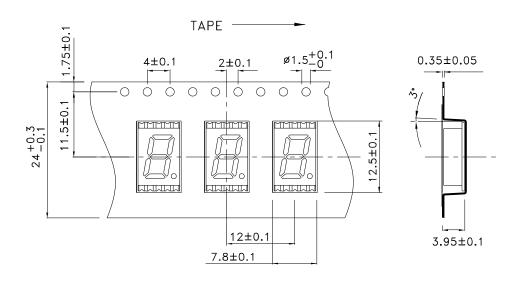
#### **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.15)

# 1.5X4=6

#### **Reel Dimension**



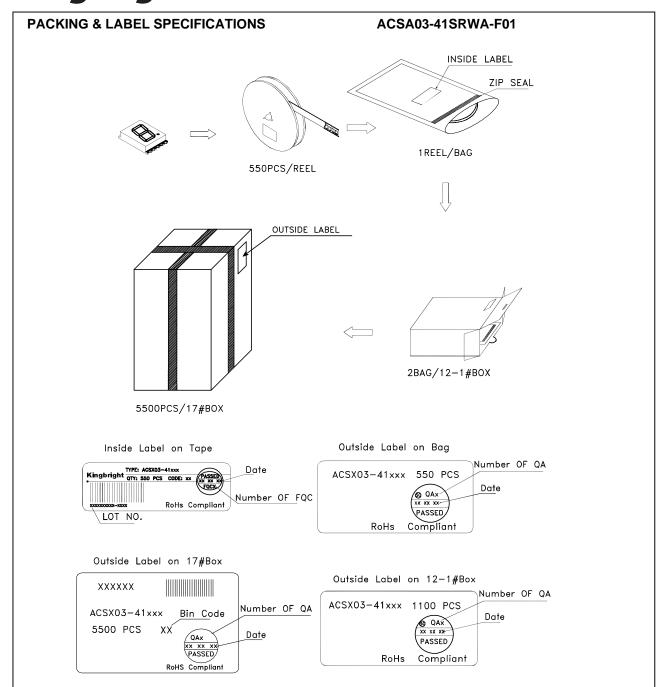
#### **Tape Specifications** (Units : mm)



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